No.



200300292

ATHER ONITIED STEATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

University of Maryland

THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREPORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITIORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR PENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE STATES SEED OF THIS VARIETY (I) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS, (84 STAT. DED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Catchpenny'

In Testimonn Therest, I have hereunto set my hand and caused the seal of the Hant Barrety Arotection Office to be affixed at the City of Washington, D.C. this twenty-fourth day of November, in the year two thousand and four.

Allack

Commissioner
Plant Variety Protection Ob

Plant Variety Protection Office Agricultural Marketing Service Socretary of Agriculture

PERPONICE LOCALLY (salvid from months and data and it	do-do-	:		
REPRODUCE LOCALLY. Include form number and date on all reproductions U.S. DEPARTMENT OF AGRICULTURE		Form Approved - OMB No. 0581-0055 The following statements are made in accordance with the Privacy Act of 1074 (5.11.9.C. 552a) and		
AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE		The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.		
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse)		Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).		
1. NAME OF OWNER		TEMPORARY DESIGNATION OR EXPERIMENTAL NAME	3. VARIETY NAME	
UNIVERSITY OF MARYLAND		MD881007-6	CATCHPENNY	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and Z	IP Code, and Country)	5. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY	
Office of Technology Commercialization		3013403-2711	PVPO NUMBER	
6200 Baltimore Ave., Suite 300 Riverdale, MD 2074249520		6. FAX (include area code)	- 200300292	
		301-403-271 7	FILING DATE	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM ORGANIZATION (corporation, partnership, association, etc.)		9. DATE OF INCORPORATION		
Non-profit			July 24, 2003	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S James Poulos) TO SERVE IN THIS APPLICATION. (FI	irst person listed will receive all papers)	F FILING AND EXAMINATION FEES:	
Office of Technology Comm	ercialižation (um:	rromoite e f Me e 1 - 1	\$ 3652.00	
6200 Baltimore Ave., Suite	e 300	versity of Maryland	R DATE 7/24/2003	
Riverdale, MD 20742-9520-			C CERTIFICATION FEE:	
			I 5 432.00	
			E DATE Q 2001	
11. TELEPHONE (Include area code)	12. FAX (Include area code)	13. E-MAIL	D T COORDINATE OF	
301-403-2711	301-403-2717	jp227@umail.umd.ed	u Barley	
15. GENUS AND SPECIES NAME OF CROP		16. FAMILY NAME (Botanical)	17. IS THE VARIETY A FIRST GENERATION HYBRID?	
Hordeum Vulgare		Graminaceae	☐ YES 💆 NO	
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT S (Follow instructions on reverse)	SUBMITTED	19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF		
a. 🗷 Exhibit A. Origin and Breeding History of the Variet	ty	CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act) [X YES (If "yes", enswer items 20 and 21 below) [X NO (If "no", go to item 22)]		
b. 🕱 Exhibit B. Statement of Distinctness		20. DOES THE OWNER SPECIFY THAT SEED OF THIS YES NO		
c. X Exhibit C. Objective Description of Variety		VARIETY BE LIMITED AS TO NUMBI		
d. Exhibit D. Additional Description of the Variety (Op		IF YES, WHICH CLASSES? X	FOUNDATION K REGISTERED K CERTIFIED	
e. K Exhibit E. Statement of the Basis of the Owner's O		21. DOES THE OWNER SPECIFY THAT SEED OF THIS YES NO		
f. Noucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public		VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS,		
repository) g. Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United"		☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED		
States" (Mail to the Plant Variety Protection Office)		(If additional explanation is necessary, please use the space indicated on the reverse.)		
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?		
OTHER COUNTRIES?		☐ YES . □X NO		
☐ YES IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE	NO , DISPOSITION, TRANSFER, OR	IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		
FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Pla	ase use space indicated on reverse.)			
The owners declare that a viable sample of basic seed of the for a tuber propagated variety a tissue culture will be deposed.	he variety has been furnished with applica sited in a public repository and maintaine	ation and will be replenished upon request in d for the duration of the certificate.	accordance with such regulations as may be applicable, or	
The undersigned owner(s) is(are) the owner of this sexually and is entitled to protection under the provisions of Section	reproduced or tuber propagated plant va		fistinct, uniform, and stable as required in Section 42,	
Owner(s) is(are) informed that false representation herein of		nalties		
CIONATURE OF OWNER		SIGNATURE OF OWNER		
Jone 6 L		The state of the s		
NAME (Pisate print or type) James A. Poulos		NAME OF THE PROPERTY OF THE PR		
James A. Poulos		NAME (Please print or type)		
	DATE 7/0/000	CAPACITY OR TITLE	DATE	
Executive Director	7/2/2003			
Office of Technology Commercial Variaty Praction Office Vising Work	2000. Replaces former Valsions of ST-470, which	ch are obsciele.	(See reverse for instructions and information collection burden statement)	

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM 18a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, merital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

EXHIBIT A - ORIGIN AND BREEDING HISTORYCATCHPENNY BARLEY

Fall 1987

Original cross made in the greenhouse at College Park, MD.

Cross number was MD881007.

Parentage: 'Post'/4/'Jotun'/3/'Hudson'//VA 67-42-

47/'Rapidan'/5/'Sussex'/'Nomini'. Post carries resistance to the greenbug (Schizaphis graminum). Nomini is one of the most

widely grown varieties in Maryland.

Fall 1988

F1 plants grown in the greenhouse.

Fall 1989

F2 plants grown in the field at Queenstown, MD.

Segregating generations of the cross MD881007 were advanced

using a modified bulk breeding method.

Summer 1995

F6 head row selection was made. Designated MD881007-6. This selection was evaluated in preliminary trials from 1996 through 1997. It was entered into the state variety trials since 1998 and tested in the Uniform Eastern Barley Nursery in the 2000/2001 crop year across twelve locations in eight states. It was observed to be a high-yielding, early season winter barley with moderate resistance to powdery mildew (caused by *Erysiphe graminis* DC. f. sp. *hordei* Em. Marchal). MD881007-6 is moderately susceptible to leaf rust (caused by *Puccinia hordei* G. Otth), net blotch (caused by *Pyrenophora teres* Drechs.) and carries resistance to the

greenbug derived from Post.

Fall 2001

Breeder seed of MD881007-6 was increased at Queenstown (MD)

and designated 'Catchpenny'.

Fall 2002

Foundation seed grown at Cordova, MD.

Observations for seven generations indicate that Catchpenny is uniform and stable.

Type and frequency of variants during reproduction and multiplication: Catchpenny contains a fully awned variant that occurs naturally in this variety, with up to 0.1% awned heads.

<u>EXHIBIT B</u> - <u>STATEMENT OF DISTINCTIVENESS</u>CATCHPENNY BARLEY

Catchpenny is different from the most widely grown feed winter barleys Nomini, Barsoy and Pennco (Tables 1 and 2) for heading date and plant height.

Table 1. 2000/2001 Barley Variety Performance Trials at the Hayden Farm Facility - **Beltsville**, MD.

Entry	Heading Date	Height (inches)
Catchpenny	April 25	34.0
Nomini	April 25	37.7
Pennco	April 27	34.3
Barsoy	April 19	34.0
FPLSD (0.05)	1 day	1.6
CV (%)	0.4	2.9

Planted on 10/9/2000.

Table 2. 2000/2001 Barley Variety Performance Trials at the Keedysville Facility - **Keedysville**, MD.

Entry	Heading Date	Height (inches)
Catchpenny	May 2	37.3
Nomini	May 2	41.3
Pennco	May 4	36.3
Barsoy	April 29	38.3
FPLSD (0.05)	1 day	2,2
CV (%)	0.4	3.7

Planted on 10/2/2000.

The values reported in these tables are means of 3 replications per entry in a randomized complete block design. Barley entries were planted (conventional tillage) at both locations in six-row plots, 18 feet in length, six inches apart. Seeding rate for barley entries was equivalent to 96 lb/acre.

FPLSD= Fisher's protected LSD test, (P 0.05) was calculated to test for pairwise comparisons (Fisher, 1966, The Design of Experiments). To calculate the FPLSD, an ANOVA was conducted on the data, and the F test was significant for both heading date and height at each location. A C.V. (Coefficient of Variation) was calculated as a measure of the relative variation of heading date and plant height of these varieties. The low values for the CVs indicate high precision in measuring these variables (Peterson, 1985, Design and Analysis of Experiments).

Catchpenny is most similar to the winter barley Nomini. It can be distinguished from Nomini because Catchpenny is shorter in plant height (Table 1 and Table 2).

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

BELTSVILLE, MARYLAND 20705

EXHIBIT C (Barley)

OBJECTIVE DESCRIPTION OF VARIETY BARLEY (HORDEUM VIII GARE)

INSTRUCTIONS: See Reverse.	BARLEY (HORDEUM VULGA	RE)
UNIVERSITY OF MARYLAND		FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No.	City, State, and ZIP Code)	PVPO NUM 270 0300292
	ercialization; 6200 Baltimor e, MD 20742-9520	
Place the appropriate number that des Place a zero in first box (i.e. 0 8 9	cribes the varietal character of this varied or 0 9) when number is either 99 or	ety in the boxes below.
1. GROWTH HABIT:	Telegraphy and admitted is either 77 or	ress or y or less.
3 1 - SPRING 2 - FACULTATIV	E WINTER 3 - WINTER Early	Growth: 1 - PROSTRATE 2 - SEMIPROSTRATE 3 - ERECT
2. MATURITY (50% Flowering):		
1 = EARLY (California Mariout) (BARSOY)	2 = MIDSEASON (Betzes) 3 = LATE (From Nomini)	ontier) IYSOR)
No. of days Earlier than 1	WYSOR BARSOY 1 - BETWEES 2 - CALIFORNIA WAY	제용⊌후 3 = CONQUEST 4 = DICKSON
2 No. of days Later than 2	5 = PIROLINE 6 = PRIMUS 7 = 1	UNITAN
3, PLANT HEIGHT (From soil level to top	of head):	
2 1 = SEMIDWARF 2 = SHORT to	指行行情報 Maribott 3 - MEDIUM TALL (数)	lomini) italii 4 = TALL (Carabat)
1 1 Cm. Shorter than 1	Nomini CALLAO	PHOUT 3 - CONQUEST 4 - DICKSON
0 9 Cm. Taller than 2	5-PIROLINE 6-PRIMUS 7-	UNITAN TERMINAL PROPERTY OF THE PROPERTY OF TH
4. STEM:		
3 Exertion (Flag to spike at maturity):	1 = 0 - 3 cm. 2 = 3 - 10 cm. 1 Anthocy	anin: 1 = ABSENT 2 = PRESENT
0 5 NO. OF NODES (Originating from	node above ground)	
1 - CLOSED 2 Collar Shape: 1 - CLOSED 2 4 - MODIFIED CL	- V-SHAPED 3 - OPEN 1 Shape of	1 = STRAIGHT 2 = SNAKY Neck: 3 = OTHER (Specify)
5. LEAF:		
Basal leaf sheath (seedling): 1 = GLA	BROUS 2 - PUBESCENT 2 Position of	of flag leaf (at boot stage): 1 = DROOPING 2 = UPRIGHT
3 Waxiness: 1 - ABSENT (Glossy)	2 - SLIGHTLY WAXY 1 5 MM.	WIDTH (First leaf below flag leaf)
2 2 CM. LENGTH (First leaf below fle	og leaf) 1 Anthocyas	nin in leaf theath: 1 = ABSENT 2 = PRESENT
. HEAD:		
2 Type: 1 - TWO-ROWED 2 - SI	X-ROWED 3 Density:	1 = LAX 2 = ERECT (Not dense) 3 = ERECT (Dense)
Shape: 1 = TAPERING 2 = STR. 4 = OTHER (Specify)	AP 3-CLAVATE 2 Waxiness:	1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
2 Lateral Kernels Overlap: 1 = NON 3 = 1/4 -	E 2 = AT TIP 2 Rachis (He	sir on edge): 1 = LACKING 2 = FEW 3 = COVERED
GLUME:		
1 = 1/3 OF LEMMA 3 = MORE THAN 1/2 OF	2 = 1/2 OF LEMMA 2 Hairs: 1	- NONE 2-SHORT 3-LONG
Hair covering: 1 = NONE 2 = RE	STRICTED TO MIDDLE 3 - CONFINED	TO BAND 4 = COMPLETELY COVERED
Awns: 1 = LESS THAN EQUAL TO 3 = MORE THAN EQUAL TO		LENGTH OF GLUMES
Awn Surface: 1 - SMOOTH 2 - 5	SEMISMOOTH 3 - ROUGH	

O 4 C144A - AL	the May have	4.5	
3=5	AWNLESS 2 = AWNLETS ON CENTRAL ROSHORT ON CENTRAL ROWS, AWNLETS ON LA		RAL ROWS HORT (less than equal to length of spike)
4 Awn Surface: 1	= AWNLESS 2 = SMOOTH 3 = SEMISM	OOTH 4 - ROUGH	기 기계 기계인 가게 이것 보고 해당한 시험 부분
3 Teeth: 1 = AB	SENT 2 = FEW 3 = NUMEROUS	2 Hair: 1 = ABSE	NT 2 - PRESENT
	1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE	1 Rachilla Hairs:	1 = SHORT 2 = LONG
9. STIGMA:			
1 Hairs: 1 = FE	N 2 = MANY		
10. SEED:		in the second second	
2 Type: 1 = NA	KED 2 = COVERED	12 Hairs on Ventral F	urrow: 1 = ABSENT 2 = PRESENT
4 Length: 1 = Si 4 = N	HORT (8.0 mm.) 2 = SHORT TO MIDLONG HDLONG TO LONG (9.0 - 10.5 mm.)		DLONG (8.5 - 9.5 mm.) DNG (10.0 mm.)
3 Wrinkling of hul	: 1 = NAKED 2 = SLIGHTLY WRINKLED	3 = SEMIWRINKLED	4 = WRINKLED
Aleurone Color:	1 = COLORLESS (White or Yellow) 2 = 8	LUE	
0 1 PERCENT A	BORTIVE	3 2 GMS. PER 10	00 SEEDS
11. DISEASE: (0 = No	t Tested, 1 = Susceptible, 2 = Resistant)		
0 SEPTORIA	1 NET BLOTCH	0 ѕрот вьотсн	2 POWDERY MILDEW
0 LOOSE SMUT	0 BACTERIAL BLIGHT	0° COVERED SMUT	0 FALSE LOOSE SMUT
0 STEM RUST	1 LEAF RUST	0 SCAB	0 SCALD
<u>0</u> AY	0 BSMV	0 BYDV	OTHER (Specify)
12. INSECT: (0 = Not to	ested, 1 = Susceptible, 2 = Resistant)		
2 GREEN BUG	0 ENGLISH GRAIN APHID	0 CHINCH BUG	0 ARMYWORM
0 GRASS HOPPERS	1 CERNAL LEAF BETTLE	0 OTHER (Specify)	
HESSIAN FLY R	ACES (0 GP 0 A	0 B 0 c	
TIESSIAIET ET T	0 D 0 E	0 F 0 G	
13. CHEMICAL (0 = Not	Tested, 1 = Susceptible, 2 = Resistant)		
0 DDT	OTHER (Specify)		
14. INDICATE WHICH	VARIETY MOST CLOSELY RESEMBLES THAT	SUBMITTED:	
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Nomini	Seed size	Nomini "
Leaf size	П	Coleoptile elongation	"
Leaf color •	i i	Seedling pigmentation	
Leaf carriage	I	57 1111 5	G
	lowing publications may be used as a reference used in this form:	nce aid for the standard	dization of character descriptions and

- 1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
- 2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61-84.
- 3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

Registration of 'Catchpenny' Barley

'Catchpenny' barley (Hordeum vulgare L.) (Reg. no. CV-298, PI 619267) is a six-rowed, feed-type winter barley developed and released in 2001 by the Maryland Agricultural Experiment Station, Department of Natural Resource Sciences and Landscape Architecture. The parentage of Catchpenny is 'Post'/4/'Jotun'/3/'Hudson'//VA 67-42-47/'Rapidan'/5/'Sussex'/'Nomini'. Catchpenny was developed by the bulk method of breeding. The last cross was made in 1988 and the seed was bulked from the F_1 through the F_5 generations. An F_5 head was sown as an F_6 head row in 1995. This F_6 head row was harvested in bulk, designated MD881007-6, subsequently tested in preliminary trials, advanced to statewide trials in the 1997-1998 crop year, and released in 2001.

Catchpenny has a green coleoptile, juvenile plants have a prostrate growth habit, leaves are glabrous, auricles are translucent, collars are closed, and anthocyanin is absent. Its nodes are green, and the flag leaf is short (avg. 5 cm) and erect at the boot stage. The spikes are compact and of medium length (avg. 6 cm) and the lemmas are awnless. Kernels are white, semiwrinkled, covered, and the rachillas have short

hairs.

Catchpenny is adapted to the mid-Atlantic region of the USA. In 11 replicated performance tests conducted in Maryland from 1998 to 2000, grain yield of Catchpenny averaged 4731 kg ha⁻¹. This grain yield was similar to that of the widely grown cultivars Nomini (Starling et al., 1994), 'Callao' (Price et al., 1996) and, 'Wysor' (Starling et al., 1987), and significantly higher (\dot{P} < 0.05) than 'Barsoy' (Finkner et al., 1968). Volume weight of Catchpenny was 591 kg m⁻³, which was similar to that of Nomini, Barsoy, and Wysor, and lower than Callao. Heading date of Catchpenny was similar to that of Nomini and Callao, 4 d earlier than Wysor, and 2 d later than Barsoy (P < 0.05). Plant height was approximately 10 cm shorter than Nomini and Wysor, similar to Barsoy, and approximately 10 cm taller than Callao (P < 0.05). Its resistance to lodging was better than Callao and approximately equal or slightly better than Nomini, Wysor, and Barsoy (P < 0.05). Catchpenny is moderately resistant to powdery mildew (caused by Erysiphe graminis DC. f. sp. hordei Em. Marchal). Catchpenny is moderately susceptible to leaf rust (caused by Puccinia hordei G. Otth) and net blotch (caused by Pyrenophora teres Drechs.).

Application for cultivar protection will be made under the U.S. Plant Variety Protection Act. Breeder seed of Catchpenny will be maintained by the Maryland Agricultural Experiment Station at College Park. Small quantities of seed for research purposes are available from the corresponding

author.

J.M. Costa,* A. Cooper, A. Grybauskas, R.J. Kratochvil, D.J. Sammons, and E. Shirley

Acknowledgments

The development of this cultivar was supported in part by the Maryland Grain Producers Utilization Board and the Maryland Crop Improvement Association.

References

Finkner, V.C., C.R. Tutt, and W.R. Coffman. 1968. Registration of Barsoy barley. Crop Sci. 8:397.

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held	
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	confidential until the certificate is issue	ed (7 U.S.C. 2426).
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
UNIVERSITY OF MARYLAND	OR EXPERIMENTAL NUMBER MD881007-6	CATCHPENNY
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) Office of Technology Commerciali	5. TELEPHONE (Include area code)	6. FAX (Include area code)
zation, 6200 Baltimore Ave., Suite 300	301-403-2711	301-403-2717
Riverdale, MD 20742-9520	7. PVPO NUMBER 200	300292
8. Does the applicant own all rights to the variety? Mark an "X" in the	 e appropriate block. If no, please expla i	n. XX YES NO
9. Is the applicant (individual or company) a U.S. national or a U.S. b	ased company? If no, give name of co	ountry. XX YES NO
10. Is the applicant the original owner?	NO If no, please answer <u>one</u> o	of the following:
a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. Nationa NO If no, give name of country	
b. If the original rights to variety were owned by a company(ies), YES	NO If no, give name of country	,
11. Additional explanation on ownership (Trace ownership from origin	nal breeder to current owner. Use the re	verse for extra space if needed):
PLEASE NOTE:		
Plant variety protection can only be afforded to the owners (not licens		
 If the rights to the variety are owned by the original breeder, that penational of a country which affords similar protection to nationals of 	erson must be a U.S. national, national of the U.S. for the same genus and specie	f a UPOV member country, or ss.
If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a c genus and species.	ed the original breeder(s), the company ountry which affords similar protection to	must be U.S. based, owned by nationals of the U.S. for the same
3. If the applicant is an owner who is not the original owner, both the o	original owner and the applicant must me	eet one of the above criteria.
The original breeder/owner may be the individual or company who direct for definitions.	ected the final breeding. See Section 4	(a)(2) of the Plant Variety Protection
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